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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,449	04/19/2001	Scott Elliot Axelrod	YOR920000210US2	2286

7590 09/25/2006

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EXAMINER

STEVENS, THOMAS H

ART UNIT	PAPER NUMBER
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2123

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/838,449	AXELROD ET AL.	
	Examiner	Art Unit	
	Thomas H. Stevens	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-24,26-40,42-52,54-57,59 and 60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7,9-23,51 and 56 is/are allowed.
- 6) ☒ Claim(s) 24,26-40,42-50,52,54,55,57,59 and 60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-7,9-24, 26-40,42-52,54-57, 59 and 60 were examined.

Specification

2. The disclosure is objected to because of the following informalities: element number series 700 is absent from the specification. Appropriate correction is required.

Claim Objections

3. Claims 34 and 47 are objected to because of the following informalities: in claims 37 and 47 the phrases "the best improvement" and "the other word", respectively, might cause antecedent problems. Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 24, 26-33, 35, 36, 38-40,42-50,52,54,55,57,59 and 60 are rejected under 35 U.S.C. 101 because they don't provide a useful, concrete and tangible result.
Suggestion: amend the independent claims in question to reflect "speech recognition".

Allowable Subject Matter

6. Claims 1-7,9-23, 51 and 56 are allowed.

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7. The following is an examiner's statement of reasons for allowance:

While US Patent 5,230,037 (claim 1) teaches method comprising the steps of: creating an evaluation model from at least one evaluation phone; creating a synthesizer model from at least one synthesizer phone; and determining a matrix from the evaluation and synthesizer model; US Patent 4,707,858 teaches said matrix configured for speech recognition; (claim 51) an apparatus comprising: a memory that stores computer-readable code; and a processor operatively coupled to said memory, said processor configured to implement said computer-readable code, said computer-readable code configured to create an evaluation model from at least one evaluation phone; create a synthesizer model from at least one synthesizer and determine a matrix from the evaluation and synthesizer models; none of these references, taken either alone or in combination, with the prior art of record disclose

(claims 1 and 51) "creating a new matrix by subtracting the matrix from an identity matrix, determining an inverse of the new matrix; and determining acoustic confusability by using the inverse of the new matrix"

(claim 15) "A method comprising the steps of : creating an evaluation model from a plurality of evaluation phones, each of the phones corresponding to a first word; creating a synthesizer model from a plurality of synthesizer phones, each of the phones

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corresponding to a second word; creating a product machine from the evaluation model and synthesizer model, the product machine comprising a plurality of transitions and a plurality of states; determining a matrix from the product machine;”

(claim 56) “a step to create a new matrix by subtracting the matrix from an identity matrix, a step to determine an inverse of the new matrix; and a step to determine acoustic confusability by using the inverse of the new matrix”

in combination with the remaining elements and features of the claimed invention. It is for these reasons that the applicants' invention defines over the prior art of record.

8. Claims 24, 26-33, 35, 36, 38-40,42-50,52,54,55,57,59 and 60 are indicated as allowable over the prior art of record.

9. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

10. The following is a statement of reasons for the indication of allowable subject matter: While US Patent 5,806,029 teaches (claim 15) determining acoustic confusability of the first word and the second word by using the matrix, said matrix configured for speech recognition; (claim 46) a method for determining acoustic

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confusability of a word pair, the method comprising the steps of; (claim 60) an article of manufacture for determining acoustic confusability of a word pair, the article of manufacture comprising: a computer-readable medium having computer-readable code means embodied thereon, the computer-readable program code means; US Patent 6,185,530 teaches (claim 24) determining acoustic confusability and for each of a plurality of word pairs; and; determining a metric by using the acoustic confusabilities, wherein step (b) further comprises the step of determining an acoustic perplexity by using the confusabilities; (claim 57) an article of manufacture comprising a computer-readable medium having computer-readable code means embodied thereon, (claim 52) an apparatus comprising: a memory that stores computer-readable code; and a processor operatively coupled to said memory, said processor configured to implement said computer-readable code, said computer-readable code configured to: a) determine acoustic confusability for each of a plurality of word pairs; and b) determine a metric by using the acoustic confusabilities; US Patent 5,790,754 teaches (claim 55) an apparatus comprising: a memory that stores computer-readable code; and a processor operatively coupled to said memory, said processor configured to implement said computer-readable code, said computer-readable code configured to: determining a matrix from the evaluation and synthesizer models; US Patent 4,707,858 teaches (claim 56) an article of manufacture comprising: a computer-readable medium having computer-readable code means embodied thereon, the computer-readable program code means comprising a step to creating an evaluation model from at least one evaluation phone; a

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step to creating a synthesizer model from at least one synthesizer phone; none of these references, taken either alone or in combination, with the prior art of record disclose

(claims 24, 52 and 57) "a plurality of word pairs, wherein step (a) further comprises the steps of, for each of the word pairs: determining an edit distance between each word of the word pair; and determining acoustic confusability from the edit distance;"

(claims 46, 55 and 60) "determining an edit distance between each word pair and an associated alignment; assigning acoustic distance to each aligned phoneme pair; and determining an acoustic confusability by summing acoustic distances"

(claim 52) "the step of determining an acoustic perplexity by using the confusabilities"

in combination with the remaining elements and features of the claimed invention. It is for these reasons that the applicants' invention defines over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Correspondence Information

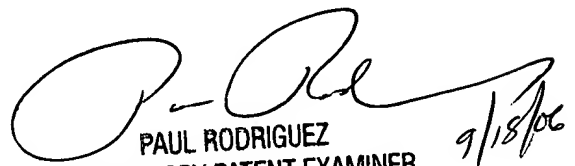
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715, Monday-Friday (8:00 am- 4:30 pm EST).

If attempts to reach the examiner by telephone are unsuccessful, please contact examiner's supervisor Mr. Paul Rodriguez 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Answers to questions regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) (toll-free (866-217-9197)).

August 22, 2006

TS


PAUL RODRIGUEZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100
9/18/06